Launey on education

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Launey speaks from experience. Her first job out of college was as a high-school teacher in Boseman, Montana. Following, were positions in several areas of the Federal Government, leading most recently to responsibility for a number of key OTT programs, including Clean Cities, of which she was the first administrator. She then joined the staff of the precedent-setting Partnership for a New Generation Vehicle (PNGV), prior to taking over the Student Vehicle Competition effort in 1995.

True to the OTT mandate, Launey has noted that education takes many forms, and she recently helped to spearhead a new effort which helps introduce small businesses and universities to the "ins and outs" of the automotive component business. Offering funds, guidance and entrées into new partnerships, the effort is designed to help a small operator with a big idea get it to market faster so that the entire transportation sector can benefit.

"This new program was inspired by the many potential breakthroughs that emerged from the Student Vehicle Competitions. Often, there's no way to further refine or commercialize them," she explained. "This program could form a valuable missing link to help good ideas flourish into commercializable products. It's just a matter of opening the right doors for those with the ideas and helping them take the vital steps."

With the Spring busy season for student vehicle competitions just about ending, Launey will be devoting some additional time to the new component effort, but she also looks forward to beginning the next round of student programs in the Fall.

"As a former teacher, as a parent and as a citizen concerned about the future of our country, I think education is an enormously important catalyst," she said. "We all need to do what we can to make it as effective as it can be."

FutureCar Challenge

(Continued from page 1.)

will put a new generation of creative auto engineers in the fast lane ..., put America's auto industry into high gear in its effort to finish first in the global marketplace of tomorrow, and accelerate the United States' ability to lessen its dependence on imported oil," the Secretary said in welcoming them. "And, as evidenced by the spectacular results you have achieved ... our investment in your experimentation will soon begin to reap rewards."

The spectacular results included those demonstrated by the University of California/Davis entry, a parallel hybrid electric vehicle (HEV) which achieved 62 mpge on the highway cycle of the competition. Perhaps most remarkably, in spite of the hundreds of pounds of batteries the vehicle had to carry onboard, it still retained its original weight, a testament to the team's ability to replace many standard components with lighter weight versions. This achievement led them to be honored with the special Best Application of Advanced Technology Award, in addition to Most Energy Efficient Vehicle and a first-place overall finish.

Other standout achievements included those of the West Virginia University entry, a series HEV which demonstrated emissions levels 50 percent lower than the stringent California Ultra-Low Emissions Vehicle (ULEV) standards, while achieving city/highway fuel economy of 41/53 mpge, and those of a parallel HEV entered by the University of Wisconsin/Madison, which achieved an impressive overall fuel economy of 56 mpge on the trip to Washington D.C.

Although perhaps the most prestigious, the FutureCar Challenge is only one of several student vehicle competitions sponsored by OTT to help students as young as high-school age to develop and further their interests in automotive engineering. With guidance from OTT, professional automakers and a dedicated faculty, students get a once-in-a-lifetime opportunity to get hands-on experience in building an actual vehicle, developing technical, as well as teamwork skills vital to their future success—as well as that of our nation's auto industry.

COMING EVENTS

AUGUST 6-9, 1997
NATIONAL CONFERENCE OF STATE LEGISLATURES ANNUAL MEETING & EXHIBITION
Philadelphia, PA
Contact LeAnn Hoff at 303-830-2200

AUGUST 6-9, 1997
SAE FUTURE TRANSPORTATION TECHNOLOGY CONFERENCE & EXPOSITION
San Diego, CA
Call 412-776-4841 for more information

SEPTEMBER 7-9, 1997
NATURAL GAS VEHICLE COALITION EXPO
Salt Lake City, UT
Contact NGVC Show Management at 410-997-0763

OCTOBER 7-9, 1997
CLEAN AIRPORT SUMMIT
Denver, CO
Call 703-528-4316 for more information

NOVEMBER 18-19, 1997
INTERNATIONAL ALTERNATIVE FUELS CONFERENCE
Dallas, TX
Call 1-800-203-8950 for more information

If you know of any upcoming events you would like to see mentioned in a future issue of the *OTT Times*, contact Ann Hegnauer, Editor. See page 2 for address and fax information.

HAVE YOU MOVED?

Please help us keep our mailing list up-to-date. If you've recently changed your address, or if you'd like to be added to or deleted from our mailing list, please fax your information to OTT Times Change of Address at (703) 412-2707.

OTT Times

TRACKING THE ADVANCEMENT OF TRANSPORTATION TECHNOLOGY

UNITED STATES DEPARTMENT OF ENERGY • ENERGY EFFICIENCY AND RENEWABLE ENERGY • OFFICE OF TRANSPORTATION TECHNOLOGIES
VOLUME FIVE;ISSUE THREE • SUMMER 1997

On The Move

Dear Reader:

Education is a major theme in this issue of *OTT Times*, and whether it be younger students riding in an alternative-fuel vehicle (AFV) to school or older students building their own AFV in school, OTT realizes that our school-aged customers are a vital constituency. After all, they represent the next generation of car buyers, the first in history for whom AFVs will be a viable choice, and the more they know about and the higher their comfort level is with these new technologies, the easier the transition to cleaner, energy security-enhancing vehicles will be.

With this in mind, OTT is expanding its slate of activities for students of all ages. For example, we are currently putting the finishing touches on *Energy Line: Alternative Fuel Vehicles*, an exciting interactive video learning tool for middle-school-aged students, produced by the National Energy Education Development Project (NEED). The children play the role of news interviewers, reading scripted questions concerning AFVs and other vital transportation issues. Keyed video segments provide the "answers" from various transportation-related experts, allowing students to present a professional-looking news show for their class, school assemblies or visiting parents. We will begin distribution of the program to NEED member schools and to Clean Cities coordinators in the Fall, but if you have children in the 12-15 age bracket, be sure to talk it up with their teachers, and feel free to give them my phone number to get more details.

We're also beefing up our resources for kids on the OTT website at http://www.ott.doe.gov. Follow the kids' links to our new picture-book-style story

(Continued on page 2.)

FutureCar competitors demonstrate 62 mpge, emissions 50% better than ULEV, and more!

Those who doubt that an 80 miles-per-gallon-equivalent (mpge) passenger vehicle is right around the corner need only to look at the results of the 1997 FutureCar Challenge to see the possibilities. In spite of limited time and resources, student participants representing a dozen of the top American engineering schools successfully converted donated production vehicles into some of the most fuel-efficient passenger cars ever put on the road, with several of the alternative fueled, lighter-weight vehicles demonstrating mpge close to double the original rating.

Sponsored by OTT, in conjunction with the Big Three American automakers and their suppliers, the FutureCar competition challenged college and university students to come as close as possible to the Partnership for a New Generation Vehicle (PNGV) goal of building a practical passenger vehicle with all the safety, performance and convenience features of today's vehicles at three times the fuel economy. This year's competition put the cars through their paces at the General Motors Tech Center in Michigan, and further tested vehicle performance on a 600+ mile drive to Washington, D.C., where the participants were met by a proud Energy Secretary, Federico Peña.

"This is an investment in the wheels of progress that

Secretary Peña waves the finish line flag as Michigan Tech crosses, top; and University of California-Davis takes first place overall, right.

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INSIDE THIS ISSUE

A Report From: The NEED Project

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The NEED Project is a nonprofit organization that was launched by Congressional Resolution in 1980. It promotes an energy conscious and educated society by creating effective networks of students, educators, business, government and community leaders to design and deliver objective, multi-sided energy education programs.

From alternative fuels to recycling, energy is a part of everyday life. It is everywhere, and affects everything and everyone. NEED believes that teaching about energy is key to developing a society capable of making wise decisions about energy issues.

To accomplish this, NEED educates Americans through the nation's students by converting energy into non-biased information and challenging students to process that information, so they can become learners and not just listeners.

This process starts with teachers who attend training conferences to receive workshop materials, activities and curriculum to share with students. Once completed, students from kindergarten through twelfth grade receive hands-on experience, using their creative talents, and critical thinking skills to brainstorm ideas on how to teach others about energy. Annually, NEED also evaluates the nation's energy knowledge through a poll entitled the *"Report Card,"* and sponsors a National Youth Awards Program. Currently, NEED has 5000 active teachers in 35 states and envisions America becoming "energy literate" by the year 2000.

Available this August 15th will be NEED's *Energy Line, Alternative Fuel Vehicles* videotape that was produced in conjunction with the Clean Cities Program. The videotape follows the format of ABC's *Nightline* and will be distributed to NEED participants and other interested audiences. Individuals may contact NEED directly to receive advanced copies.

Also, two new programs will be added to the project by September 1998: The Energy Summit —where industry, educational and governmental leaders team with kids to help defeat misconceptions common to the energy industry; and, The Energy Pros—a speaker's bureau of industry leaders who will speak to students about current energy trends. Funding for these programs will be provided by the Department of Energy, local and regional sponsors and national energy companies.

For more information on the NEED Project, contact State Programs Director Mary Spruill, 102 Elden Street, Suite 15, Herndon, VA 20170, 703-471-6263, (fax) 703-471-6306 or visit the website at http://www.need.org/need.

"Association News" appears in each issue of OTT Times. The column is presented as a forum for the featured transportation-related trade association, and is written based on facts provided by them. OTT does not independently verify claims made by the association, and the column does not necessarily reflect the office's beliefs or opinions. If you would like to find out more about how your association can be featured, contact the Editor.

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On The Move

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Daniel and His Electric Car, which features a five-year old helping mommy and daddy choose a new family vehicle. Print it out and you've got a nice bedtime story that will educate as well as entertain, and help your young child understand what we are all working toward.

In addition, the website also includes the pages of the coloring book we reported on here a few months back. Written and drawn as a labor of love by the employees of the Peoria, IL Post Office, and printed with OTT funds, the coloring book follows the adventures of the heroic Energy Eagle as he helps clean up the air in his hometown. Now that it's online, the coloring book can reach more children than ever before. Feel free to print it out to provide some rainy day fun for the special children in your life!

Until next time—

Ann Hegnauer

Shelley Launey takes the educational initiative

Shelley Launey

As OTT's Student Vehicle Competition Coordinator, Shelley Launey is one of the more visible members of the staff—especially among OTT customers at the high school and college levels.

"I've held a lot of jobs, but this one gives me the greatest satisfaction," Launey said. "The commitment and the talent of these students and their advisors is just extraordinary. It gives me a great deal of personal pride to have a role in providing them with this unique hands-on engineering education, with the experience of conceiving and building an entire vehicle."

But Launey was a strong proponent of technology education years before taking over the Student Vehicle Competition Program—even if she previously had to pursue it more as a "hobby" within other job responsibilities. For example, she has long been involved in developing classroom activities for area students, presenting insights into how transportation is changing, as well as OTT's role in that development. Often, she will arrange to bring actual advanced technology or other alternative fuel vehicles to DOE for an out-of-the-ordinary "show and tell."

"I've been in contact with a number of science teachers and the invitations keep coming—they are very enthusiastic about having us present our program," she noted. "It's always a benefit to have outside experts come to your classroom to help enhance your teaching material."

(Continued on page 4.)

OTT Times talks with John Kubesh, Southwest Research Institute

John Kubesh,
Senior Research Engineer

Southwest Research Institute, a non-profit, contract research organization, is the prime contractor in a cost-shared effort led by OTT and NREL that has resulted in "Envirobus 2000," an ultra-safe, ultra-low emissions natural gas-powered school bus.

Q: What makes Envirobus 2000 different?

A: "The major development from the emissions side is in the engine that's onboard the bus; it's really a new standard in heavy-duty natural gas engines. It offers a significantly higher power density than other engines in its class, while providing much better fuel efficiency—as good as diesel in many instances. Also, it's truly heavy duty, ruggedly constructed with replaceable cylinder liners, and meets the California Ultra-Low Emissions Vehicle (ULEV) standards."

Q: And on the safety side?

A: "This is a complete concept vehicle, inside and out. Special natural gas tanks were created for the bus, and they have been placed, for the first time, inside the frame rails for even greater protection. The bus itself is full of intelligent electronics. Research has shown that most school bus incidents involve children being hit by their own bus, so it's often a visibility issue. Our bus includes radar that lets the driver know if anyone is still near the vehicle before he or she pulls away, as well as video cameras that all but eliminate blind spots. In addition, the driver sits higher and the windows are wider and strategically angled for maximum visibility all around."

Q: Who are the creators of the bus?

A: "OTT and NREL had the original vision that sparked the project, and that led to four very committed private sector companies coming together. Southwest worked with John Deere, a pioneer in heavy-duty natural gas engine development, to build this new engine. Blue Bird Incorporated, the world's leading bus manufacturer, built the new concept chassis with the wider frame rails—it's since become their standard production chassis for natural gas buses. They also championed all the onboard electronics. Finally, CNG Cylinder Company manufactured the state-of-the-art fuel tanks especially for the bus. Although Steve Goguen of OTT first verbalized the idea, I sense that it really tapped into a desire in all the partners to create this kind of 'dream bus,' and we've all worked to go beyond the original contract to make the engine, chassis and body even better and more full-featured than planned."

Q: How will this bus "make the world a better place?"

A: "I think it shows how safe a school bus could be. Although Envirobus 2000 would probably be too expensive for most school districts to afford, it's definitely pointing us toward the future, with innovations which will likely become standard issue over time. Alternative fuel vehicles often get a bad rap from operators that they're not as reliable or as efficient as a diesel, but it's all in the execution of the engine. Through this project, I think we've shown people that a heavy-duty natural gas engine can be efficient, low emissions, cost-effective to operate, and very reliable."